

contain a further N or O atom and which can be mono- or poly-substituted by C₁-C₈alkyl;

R₁₆ and R₁₇ are each independently of the other mono- or poly-substituted C₁-C₁₂alkyl, C₂-C₁₂alkenyl, C₂-C₁₂alkynyl, C₃-C₁₂cycloalkyl, C₃-C₁₂cycloalkenyl, C₃-C₁₂heterocycloalkyl, C₇-C₁₂aralkyl, C₆-C₁₀aryl or C₅-C₉heteroaryl;

M' is a transition metal cation having r positive charges;

A^{m-} is an inorganic, organic or organometallic anion, or a mixture thereof;

Zⁿ⁺ is a proton, a metal, ammonium or phosphonium cation, a positively charged organic or organometallic chromophore, or a mixture thereof;

it being possible once or more times radicals of the same or different ligands L₁, L₂, L₃ and/or L₄, each selected from the group consisting of R₁, R₂, R₃, R₄, R₅, R₆, R₇, R₈, R₉, R₁₀, R₁₁, R₁₂, R₁₄, R₁₅ and R₁₆, to be bonded to one another in pairs by way of a direct bond or an -O-, -S- or -N(R₁₇)- bridge, and/or for from 0 to p anions A^{m-} and/or from 0 to q cations Zⁿ⁺ each to be bonded to any radical R₁, R₂, R₃, R₄, R₅, R₆, R₇, R₈, R₉, R₁₀, R₁₁, R₁₂, R₁₃, R₁₄, R₁₅, R₁₆ or R₁₇ of the same or different ligands L₁, L₂, L₃ and/or L₄ or to M' by way of a direct bond or an -O-, -S- or -N(R₁₇)- bridge;

k is an integer from 1 to 6;

m, n and r are each independently of the others an integer from 1 to 4; preferably m and n are 1 or 2 and r is 2 or 3; o is a number from 1 to 4; and

[[o,]] p and q are each a number from 0 to 4, the ratio of o, p and q to one another, according to the charge of the associated sub-structures, being such that in formula (I), (II) or (III) there is no resulting excess positive or negative charge;

and with the further proviso that when R₁, R₃, R₄, R₅, R₇ and R₈ are all H, R₂ is OH, R₆ is NO₂, M is Co and r is 3, [Zⁿ⁺]_q does not have the formula